



# FAIRFAX COUNTY

## DEPARTMENT OF HEALTH

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### HOW TO PREVENT INJURY AFTER A STORM

When the wind and waters recede, people in the areas affected by a storm will continue to face a number of hazards associated with cleanup activities. The National Institute for Occupational Safety and Health (NIOSH) offers the following guidelines for preventing injury:

#### **Wear Protective Gear**

For most work in flooded areas, wear hard hats, goggles, heavy work gloves, and watertight boots with steel toe and insole (not just steel shank).

Wear earplugs or protective headphones to reduce risk from equipment noise. Equipment such as chain saws, backhoes, and dryers may cause ringing in the ears and subsequent hearing damage.

#### **Beware of Electrical Hazards**

- If water has been present anywhere near electrical circuits and electrical equipment, turn off the power at the main breaker or fuse on the service panel. Do not turn the power back on until electrical equipment has been inspected by a qualified electrician.
- Never enter flooded areas or touch electrical equipment if the ground is wet, unless you are certain that the power is off. NEVER handle a downed power line.
- When using gasoline and diesel generators to supply power to a building, switch the main breaker or fuse on the service panel to the "off" position prior to starting the generator.
- If clearing or other work must be performed near a downed power line, contact the utility company to discuss de-energizing and grounding or shielding of power lines. Extreme caution is necessary when moving ladders and other equipment near overhead power lines to avoid inadvertent contact.

If you are working on or near power lines, refer to the additional recommendations provided from the Hazards of Flood Cleanup Work from NIOSH.

#### **Avoid Carbon Monoxide**

Carbon monoxide is an odorless, colorless gas that is poisonous to breathe. During flood cleanup, operate all gasoline-powered devices such as pumps, generators, and pressure washers outdoors and never bring them indoors. This will help to ensure your safety from carbon monoxide poisoning.

For additional information on carbon monoxide see Questions and Answers About Carbon Monoxide Poisoning (Esta página en español) from CDC's National Center for Environmental Health.

### **Prevent Musculoskeletal Injury**

Special attention is needed to avoid back injuries associated with manual lifting and handling of debris and building materials.

To help prevent injury:

- Use teams of two or more to move bulky objects.
- Avoid lifting any material that weighs more than 50 pounds (per person)
- Use proper automated-assist lifting devices

### **Beware of Structural Instability**

Never assume that water-damaged structures or ground are stable. Buildings that have been submerged or have withstood rushing flood waters may have suffered structural damage and could be dangerous.

- Don't work in or around any flood-damaged building until it has been examined and certified as safe for work by a registered professional engineer or architect.
- Assume all stairs, floors, and roofs are unsafe until they are inspected.
- Leave immediately if shifting or unusual noises signal a possible collapse.

### **Avoid Hazardous Materials**

Flood waters can dislodge tanks, drums, pipes, and equipment, which may contain hazardous materials such as pesticides or propane.

- Do not attempt to move unidentified dislodged containers without first contacting the local fire department or hazardous materials team.
- If working in potentially contaminated areas, avoid skin contact or inhalation of vapors by wearing appropriate protective clothing and respirators.
- Frequently and thoroughly wash skin areas that may have been exposed to pesticides and other hazardous chemicals.
- Contact NIOSH for more information on the proper safety equipment.

### **Be Prepared for Fires**

Fire can pose a major threat to an already badly damaged flood area for several reasons:

- Inoperative fire protection systems.
- Hampered fire department response.
- Inoperable firefighting water supplies.
- Flood-damaged fire protection systems.

At least two fire extinguishers, each with a UL rating of at least 10A, should be provided at every cleanup job.

### **Prevent Drowning**

When entering moving water, you are at risk for drowning, regardless of your ability to swim. Because those in vehicles are at greatest risk of drowning, it is important to comply with all hazard warnings on roadways and to avoid driving vehicles or heavy equipment into water of an unknown depth. NIOSH recommends that you avoid working alone and wear a Coast Guard-approved life jacket when working in or near flood waters.

## **Reduce Risk of Thermal Stress**

While cleaning up after the storm, you are at risk for developing health problems from working in hot or cold environments.

To reduce heat-related risks:

- Drink a glass of fluid every 15 to 20 minutes.
- Wear light-colored, loose-fitting clothing
- Work during the cooler hours of the day.

To reduce cold-related when standing or working in water that is cooler than 75° F (24 °C):

- Wear rubber boots.
- Ensure that clothing and boots have adequate insulation.
- Take frequent breaks out of the water.
- Change into dry clothing when possible.

For more information on coping with these risks, visit [Hazards of Flood Cleanup Work](#) from NIOSH.

## **Prevent Fatigue-Related Injuries**

Continued long hours of work, combined with exhaustion, can create a highly stressful situation during cleanup. People working on storm and flood cleanup can reduce their risks of injury and illness in several ways:

- Set priorities for cleanup tasks and pace the work. Avoid physical exhaustion.
- Resume a normal sleep schedule as quickly as possible.
- Be alert to emotional exhaustion or strain. Consult family members, friends or professionals for emotional support.